



Terms of Reference for Niagara Peninsula Source Protection Area

Niagara Peninsula Source Protection Committee

Amended 2009-February-10
MOE Approval Posted 2009-April-14

Table of Contents

Background	4
Introduction	4
Definitions	5
Map of Source Protection Area	7
Map of Source Protection Region	8
List of Municipalities Located in the Niagara Peninsula Source Protection Area.....	9
List of Municipal Residential Drinking Water System(s).....	10
List of Drinking Water System(s) Included by Municipal Council Resolution	11
List of Drinking Water Systems Serving Reserve(s)	12
List of Fully or Partially Exempted Municipal Residential Drinking Water System(s).....	13
List of Drinking Water System(s) Included by Minister of the Environment	14
List of Matter(s) that Affect Other Source Protection Committees	15
The Work Plan to Complete the Assessment Report.....	16
The Work Plan to Complete the Source Protection Plan	19
The Date the Source Protection Plan is to be Submitted to the Minister for Approval by the Niagara Peninsula Conservation Authority:.....	22
Council Resolution(s) to Include Drinking Water System(s)	23
Council Resolution(s) to Exempt Municipal Residential Drinking Water System(s).....	24
Detailed Information on Municipal Residential Drinking Water System(s).....	25
Detailed Information on Drinking Water System(s) Included by Municipal Council Resolution	28
Detailed Information on Drinking Water System(s) Included by Bands Serving Reserve(s).....	29
Detailed Information on Fully or Partially Exempted Municipal Residential Drinking Water System(s)	30
Detailed Information on Drinking Water System(s) Included by the Minister of the Environment.....	31
Detailed Work Plan to Complete the Assessment Report.....	32

Terms of Reference

Detailed Work Plan to Complete the Source Protection Plan 49
Summary of Financial Statistics 60
Estimated Costs for Tasks by Fiscal Year 61
Process Checklist..... 65
Appendix: Full Task Descriptions..... 67

Background

In October 2006 the Clean Water Act (CWA) was passed by the Ontario legislature, and on July 3, 2007 the CWA was proclaimed and came into effect in the Province of Ontario, along with 5 associated regulations. The CWA creates a legislative framework to protect municipal drinking water sources in Ontario. The CWA will ensure that communities are able to protect their drinking water supplies through the development of collaborative, locally driven, science-based source protection plans.

The legislation and associated regulations requires that a local multi-stakeholder source protection committee (SPC) develop a Terms of Reference (TOR) which outlines the tasks that will be required to prepare:

1. an assessment report identifying and assessing the threats to municipal drinking water sources; and
2. a source protection plan identifying how those threats will be managed and monitored.

The TOR will also identify who will be responsible to complete each of the tasks, as well as the estimated completion date and cost for each task.

Introduction

The Niagara Peninsula Source Protection Area (NPSPA) is located between Lake Ontario and Lake Erie, and covers the same area as the Niagara Peninsula Conservation Authority (NPCA). The NPSPA is 2,424 km² in size, and this unique jurisdiction covers the Regional Municipality of Niagara (Regional Niagara) and approximately 20% of the City of Hamilton and 25% of Haldimand County. There are also 12 local municipalities located within Regional Niagara.

There are six municipal residential drinking water systems located in the NPSPA. All six systems are characterized as water treatment plants (WTPs) with surface water intakes that ultimately derive their source water from the Great Lakes. None of the municipal residential drinking water systems in NPSPA use groundwater as a drinking water source.

These Terms of Reference (TOR) were prepared by the Niagara Peninsula Source Protection Committee to address the requirements of the Clean Water Act and its associated regulations within a unique area of Ontario, namely the NPSPA.

This TOR document was generated using computer software provided by the Ontario Ministry of the Environment (MOE). The software ensures that a consistent format is used for the TOR when it is submitted to the MOE. The TOR were prepared after consulting with Regional Municipality of Niagara, the owners and operators of the six municipal residential drinking water systems located in NPSPA.

A list of definitions is provided below. These definitions are based on information provided in MOE guidance documents. Descriptions of the tasks making up the Assessment Report and Source Protection Plan workplans are provided in the attached appendix.

Definitions

Aquifer: A geologic formation, a group of formations or a part of a formation that is water bearing. (2) A geologic formation that stores or transmits water or both such as to springs or wells. (3) An underground layer of porous rock, sand, or gravel containing large amounts of water. (4) *Saturated rock or sediment sufficiently permeable to supply economic quantities of water to wells or springs.*

Aquifer Recharge Area: An area in which water can infiltrate the soil and replenish an aquifer relatively easily. Aquifer recharge areas allow precipitation to reach an aquifer by infiltration. Recharge areas are often much smaller than the actual aquifer area and are important to the aquifer.

Aquifer Susceptibility (or Vulnerability): An intrinsic property of a groundwater system that depends on the sensitivity of that system to human and/or natural impacts. Intrinsic vulnerability depends solely on the hydrogeologic properties of an aquifer.

Drinking-water health hazard: Has the same meaning as in the *Safe Drinking Water Act, 2002*;

Drinking-water system: Has the same meaning as in the *Safe Drinking Water Act, 2002*;

Drinking-water threat: An existing activity, possible future activity or existing condition that results from a past activity,

(a) that adversely affects or has the potential to adversely affect the quality or quantity of any water that is or may be used as a source of drinking water, or

(b) that results in or has the potential to result in the raw water supply of an existing or planned drinking-water system failing to meet any standards prescribed by the regulations respecting the quality or quantity of water,

and includes an activity or condition that is prescribed by the regulations as a drinking water threat;

Groundwater: Water that infiltrates the earth's surface. (2) Subsurface water that occurs beneath the water table in soils and geological formations that are fully saturated.

Groundwater recharge area: The area where an aquifer is replenished from (a) natural processes, such as the infiltration of rainfall and snowmelt and the seepage of surface water from lakes, streams and wetlands, (b) from human interventions such as the use of storm water management systems, and (c) whose recharge rate exceeds a threshold specified in the regulations. The Director's rules will specify the acceptable methodologies to determine groundwater recharge rates, i.e. what qualifies as significant.

Highly vulnerable aquifer (HVA): has the meaning prescribed by the regulations.

Municipal drinking-water system: has the same meaning as in the *Safe Drinking Water Act, 2002*;

Municipal planning authority: means a municipal planning authority established under section 14.1 of the *Planning Act*;

Terms of Reference

Recharge: The addition of water to the groundwater system by natural (precipitation and infiltration) or artificial processes. *The process by which water is added to groundwater, which may include the downward infiltration of precipitation or inflow from streams or other surface water bodies.*

Risk assessment: means an assessment of risks prepared in accordance with the regulations and the rules;

Risk management plan: means a plan for reducing a risk prepared in accordance with the regulations and the rules;

Significant drinking water threat: means a drinking water threat that, according to a risk assessment, poses or has the potential to pose a significant risk;

Source protection area: means a drinking water source protection area established by subsection 4 (1) or by the regulations of the Clean Water Act;

Source protection authority (SPA): means a conservation authority or other person or body that, under subsection 4 (2) or section 5, is required to exercise and perform the powers and duties of a drinking water source protection authority under the Clean Water Act;

Source protection committee: means a drinking water source protection committee established under section 7 of the Clean Water Act;

Source protection plan: means a drinking water source protection plan prepared under of the Clean Water Act;

Source protection region: means a drinking water source protection region established by the regulations of the Clean Water Act;

Source Water: Water in its natural or raw state, prior to being withdrawn into the drinking water system.

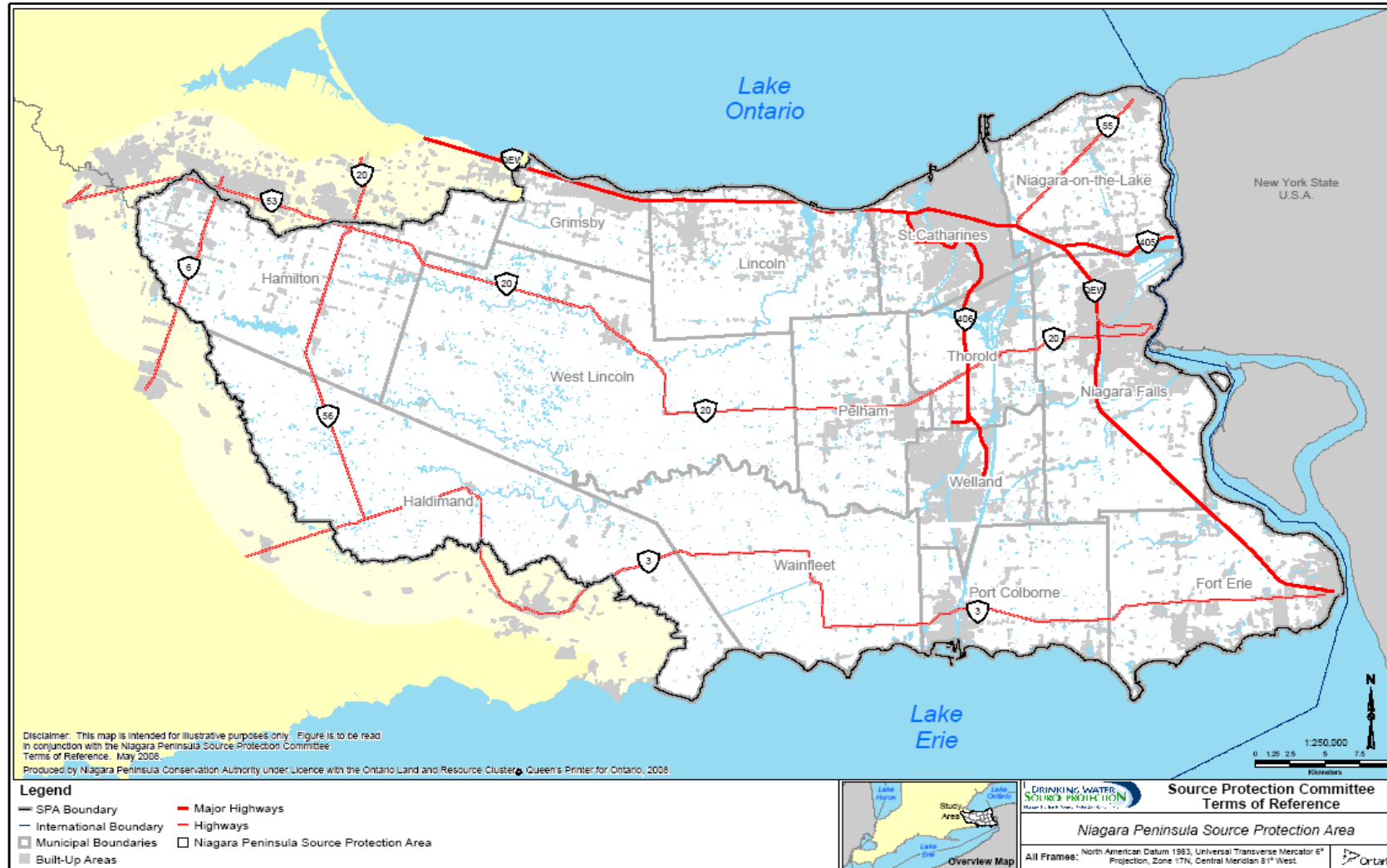
Surface water intake protection zone (IPZ): has the meaning prescribed by the regulations of the Clean Water Act;

Vulnerable area: means,
(a) a significant groundwater recharge area (SGRA),
(b) a highly vulnerable aquifer (HVA),
(c) a surface water intake protection zone (IPZ), or
(d) a wellhead protection area (WHPA);

Watershed: An area that is drained by a river and its tributaries.

Wellhead protection area (WHPA): The surface and subsurface area surrounding a water well or well field that supplies a municipal residential water system or other designated system through which contaminants are reasonably likely to move so as to eventually reach the water well or well. The wellhead protection areas are described in the Groundwater Vulnerability Analysis Guidance Module.

Map of Source Protection Area



Map of Source Protection Region

Not Applicable to this Plan.

List of Municipalities Located in the Niagara Peninsula Source Protection Area

Legal Name of Municipality
Regional Municipality of Niagara
City of Hamilton
Haldimand County
Town of Grimsby
Town of Lincoln
City of St. Catharines
Town of Niagara-on-the-Lake
City of Thorold
City of Niagara Falls
Town of Fort Erie
City of Welland
City of Port Colborne
Town of Pelham
Town of Wainfleet
Township of West Lincoln

There are three upper tier municipalities; Regional Municipality of Niagara, City of Hamilton, and Haldimand County. There are also 12 local municipalities located within the Regional Municipality of Niagara.

List of Municipal Residential Drinking Water System(s)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)
Existing	220002020	Fort Erie (Rosehill) Water Treatment Plant	Regional Municipality of Niagara	Regional Municipality of Niagara	Surface Water
Existing	220007150	Grimsby Water Treatment Plant	Regional Municipality of Niagara	Regional Municipality of Niagara	Surface Water
Existing	220002084	Niagara Falls Water Treatment Plant	Regional Municipality of Niagara	Regional Municipality of Niagara	Surface Water
Existing	220002075	Port Colborne Water Treatment Plant	Regional Municipality of Niagara	Regional Municipality of Niagara	Surface Water
Existing	220002066	St. Catharines (Decew) Water Treatment Plant	Regional Municipality of Niagara	Regional Municipality of Niagara	Surface Water
Existing	220002048	Welland Water Treatment Plant	Regional Municipality of Niagara	Regional Municipality of Niagara	Surface Water

List of Drinking Water System(s) Included by Municipal Council Resolution

(Not Municipal Residential Drinking Water Systems)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)	Title of Council Resolution
---	-------------------------------------	-----------------------------------	--------------	----------------------------	---	------------------------------------

No Drinking Water Systems have been included in the Niagara Peninsula Source Protection Area by way of Municipal Council Resolution.

List of Drinking Water Systems Serving Reserve(s)

(Not Municipal Residential Drinking Water Systems)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)	Regulation Reference
---	-------------------------------------	-----------------------------------	--------------	----------------------------	---	-----------------------------

There are no Reserves located in the Niagara Peninsula Source Protection Area, and no Drinking Water Systems serving reserves.

List of Fully or Partially Exempted Municipal Residential Drinking Water System(s)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)	Title of Council Resolution
--------------------------------------	------------------------------	----------------------------	-------	---------------------	--	-----------------------------

Municipal Residential Drinking Water Systems may be Fully or Partially Exempted Systems if they are to be removed from service within five years. There are no Fully or Partially Exempted Municipal Residential Drinking Water Systems located in the Niagara Peninsula Source Protection Area.

List of Drinking Water System(s) Included by Minister of the Environment

(Not Municipal Residential Drinking Water Systems)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)
---	-------------------------------------	-----------------------------------	--------------	----------------------------	---

There are no Drinking Water Systems included by the Minister of the Environment for the Niagara Peninsula Source Protection Area.

List of Matter(s) that Affect Other Source Protection Committees

Source Protection Committees Affected	Source Protection Area	Description of Matter
Halton-Hamilton Source Protection Committee	Halton-Hamilton Source Protection Region	Woodward Avenue Water Treatment Plant (WTP) is located in City of Hamilton but currently provides municipal residential drinking water to portions of Hamilton that are located within the Niagara Peninsula Source Protection Area (NPSPA). □□The Grimsby WTP is located in the NPSPA but supplies municipal drinking water to a small area located in Halton-Hamilton Source Protection Region.
Halton-Hamilton Source Protection Committee	Halton-Hamilton Source Protection Region	The Grimsby Water Treatment Plant (WTP) intake is located in the Niagara Peninsula Source Protection Area, but part of its Intake Protection Zone 2 (IPZ-2) extends into the Halton-Hamilton Source Protection Region.

Terms of Reference

The Work Plan to Complete the Assessment Report

By Source Protection Area/ Drinking Water System Name	Task	Assigned Lead(s)	Estimated Completion Date	Estimated Cost
Niagara Peninsula Source Protection Area	Coordinating and supporting projects for the assessment report	Niagara Peninsula Source Protection Authority	2010-Mar-31	\$2,097,512
Niagara Peninsula Source Protection Area	Undertaking communications initiatives for the assessment report	Niagara Peninsula Source Protection Authority	2010-Mar-31	\$505,314
Niagara Peninsula Source Protection Area	Information management for the assessment report preparation	Niagara Peninsula Source Protection Authority	2010-Mar-31	\$79,678
Niagara Peninsula Source Protection Area	Undertaking a watershed characterization	Niagara Peninsula Source Protection Authority	2009-Mar-31	\$21,912
Niagara Peninsula Source Protection Area	Conducting a conceptual water budget	Niagara Peninsula Source Protection Authority	2007-Jun-15	\$63,473
Niagara Peninsula Source Protection Area	Conducting a tier 1 water budget analysis and stress assessment	Niagara Peninsula Source Protection Authority	2008-Dec-31	\$171,210
Niagara Peninsula Source Protection Area	Delineating and applying vulnerability scores to HVAs	Niagara Peninsula Source Protection Authority	2009-Jan-30	\$2,778
Niagara Peninsula Source Protection Area	Identifying issues, inventorying threats and assessing hazards in HVAs	Niagara Peninsula Source Protection Authority	2009-Mar-31	\$7,000
Niagara Peninsula Source Protection Area	Assessing risks in HVAs	Niagara Peninsula Source Protection Authority	2009-Apr-30	\$5,000
Niagara Peninsula Source Protection Area	Applying vulnerability scores to SGRAs	Niagara Peninsula Source Protection Authority	2009-Jan-30	\$0
Niagara Peninsula Source Protection Area	Identifying issues, inventorying threats and assessing hazards in SGRAs	Niagara Peninsula Source Protection Authority	2009-Mar-31	\$6,000
Niagara Peninsula Source Protection Area	Assessing risk in SGRAs	Niagara Peninsula Source Protection Authority	2009-Apr-30	\$0
Niagara Peninsula Source Protection Area	Consultation on the overall proposed assessment report Consult with municipalities and public on	Niagara Peninsula Source Protection Authority	2010-Jan-31	\$40,000

Terms of Reference

	Assessment Report			
Niagara Peninsula Source Protection Area	Assemble the Assessment Report (AR) from the various technical reports	Niagara Peninsula Source Protection Authority	2009-Sep-30	\$50,000
Municipal Residential Drinking Water Systems				
Port Colborne Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Regional Municipality of Niagara	2008-Sep-27	\$61,000
Fort Erie (Rosehill) Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Regional Municipality of Niagara	2008-Sep-27	\$61,000
Niagara Falls Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Regional Municipality of Niagara	2008-Sep-27	\$61,000
St. Catharines (Decew) Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Regional Municipality of Niagara	2008-Sep-27	\$95,000
Welland Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Regional Municipality of Niagara	2008-Sep-27	\$61,000
Grimsby Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Regional Municipality of Niagara	2008-Sep-27	\$85,725
Fort Erie (Rosehill) Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Regional Municipality of Niagara	2009-Apr-30	\$41,800
Grimsby Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Regional Municipality of Niagara and Niagara Peninsula Source Protection Authority	2009-Apr-30	\$55,784
Niagara Falls Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Regional Municipality of Niagara	2009-Apr-30	\$41,800
Welland Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Regional Municipality of Niagara	2009-Apr-30	\$41,800
Port Colborne Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Regional Municipality of Niagara	2009-Apr-30	\$41,800
St. Catharines (Decew) Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Regional Municipality of Niagara	2009-Apr-30	\$41,800
Fort Erie (Rosehill) Water Treatment Plant	Assess risk in WHPAs or IPZs	Regional Municipality of Niagara	2009-May-31	\$10,800
Welland Water Treatment Plant	Assess risk in WHPAs or IPZs	Regional Municipality of Niagara	2009-May-31	\$10,800
St. Catharines (Decew) Water Treatment Plant	Assess risk in WHPAs or IPZs	Regional Municipality of Niagara	2009-May-31	\$10,800

Terms of Reference

Port Colborne Water Treatment Plant	Assess risk in WHPAs or IPZs	Regional Municipality of Niagara	2009-May-31	\$10,800
Niagara Falls Water Treatment Plant	Assess risk in WHPAs or IPZs	Regional Municipality of Niagara	2009-May-31	\$10,800
Grimsby Water Treatment Plant	Assess risk in WHPAs or IPZs	Regional Municipality of Niagara and Niagara Peninsula Source Protection Authority	2009-May-31	\$14,608
Drinking Water Systems By Municipal Resolution	No Drinking Water Systems have been included in the Niagara Peninsula Source Protection Area by way of Municipal Council Resolution.			
Drinking Water Systems By Band Resolution	There are no Reserves located in the Niagara Peninsula Source Protection Area, and no Drinking Water Systems serving reserves			
Fully or Partially Exempt Drinking Water Systems	There are no Fully or Partially Exempted Municipal Residential Drinking Water Systems located in the Niagara Peninsula Source Protection Area.			
Drinking Water Systems Included By Minister	There are no Drinking Water Systems included by the Minister of the Environment for the Niagara Peninsula Source Protection Area.			

Terms of Reference

The Work Plan to Complete the Source Protection Plan

By Source Protection Area/ Drinking Water System Name	Task	Assigned Lead(s)	Estimated Completion Date	Estimated Cost
Niagara Peninsula Source Protection Area	Coordinating and supporting projects for the source protection plan (SPP)	Niagara Peninsula Source Protection Authority	2012-Mar-31	\$965,000
Niagara Peninsula Source Protection Area	Undertaking communications initiatives for the source protection plan	Niagara Peninsula Source Protection Authority	2012-Mar-31	\$175,000
Niagara Peninsula Source Protection Area	Information management for source protection plan preparation	Niagara Peninsula Source Protection Authority	2012-Mar-31	\$40,000
Niagara Peninsula Source Protection Area	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$10,000
Niagara Peninsula Source Protection Area	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$10,000
Niagara Peninsula Source Protection Area	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$15,000
Niagara Peninsula Source Protection Area	Establishing timelines for policy implementation	Niagara Peninsula Source Protection Authority	2011-Aug-31	\$20,000
Niagara Peninsula Source Protection Area	Consultation on the overall proposed source protection plan	Niagara Peninsula Source Protection Authority	2012-Mar-31	\$60,000
Niagara Peninsula Source Protection Area		Niagara Peninsula Source Protection Authority	2012-Mar-31	\$14,000

Terms of Reference

Municipal Residential Drinking Water Systems				
St. Catharines (Decew) Water Treatment Plant	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$40,000
Port Colborne Water Treatment Plant	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$40,000
Niagara Falls Water Treatment Plant	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$40,000
Grimsby Water Treatment Plant	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$40,000
Fort Erie (Rosehill) Water Treatment Plant	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$40,000
Welland Water Treatment Plant	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$40,000
Fort Erie (Rosehill) Water Treatment Plant	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$30,000
Welland Water Treatment Plant	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$30,000
St. Catharines (Decew) Water Treatment Plant	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$30,000
Port Colborne Water Treatment Plant	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$30,000
Niagara Falls Water Treatment Plant	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$30,000
Grimsby Water Treatment Plant	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$30,000
Fort Erie (Rosehill) Water Treatment Plant	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$40,000
Grimsby Water Treatment Plant	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$40,000
Niagara Falls Water	Policy development for Great Lakes elements (where	Niagara Peninsula Source	2011-Mar-31	\$40,000

Terms of Reference

Treatment Plant	required/permissible in Act & Regs)	Protection Authority		
Port Colborne Water Treatment Plant	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$40,000
Welland Water Treatment Plant	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$40,000
St. Catharines (Decew) Water Treatment Plant	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2011-Mar-31	\$40,000
Fort Erie (Rosehill) Water Treatment Plant	Establishing timelines for policy implementation	Niagara Peninsula Source Protection Authority	2011-Aug-31	\$10,000
Welland Water Treatment Plant	Establishing timelines for policy implementation	Niagara Peninsula Source Protection Authority	2011-Aug-31	\$10,000
St. Catharines (Decew) Water Treatment Plant	Establishing timelines for policy implementation	Niagara Peninsula Source Protection Authority	2011-Aug-31	\$10,000
Port Colborne Water Treatment Plant	Establishing timelines for policy implementation	Niagara Peninsula Conservation Authority	2011-Aug-31	\$10,000
Grimsby Water Treatment Plant	Establishing timelines for policy implementation	Niagara Peninsula Source Protection Authority	2011-Aug-31	\$10,000
Niagara Falls Water Treatment Plant	Establishing timelines for policy implementation	Niagara Peninsula Source Protection Authority	2011-Aug-31	\$10,000
Drinking Water Systems By Municipal Resolution	No Drinking Water Systems have been included in the Niagara Peninsula Source Protection Area by way of Municipal Council Resolution.			
Drinking Water Systems By Band Resolution	There are no Reserves located in the Niagara Peninsula Source Protection Area, and no Drinking Water Systems serving reserves			
Fully or Partially Exempt Drinking Water Systems	There are no Fully or Partially Exempted Municipal Residential Drinking Water Systems located in the Niagara Peninsula Source Protection Area.			
Drinking Water Systems Included By Minister	There are no Drinking Water Systems included by the Minister of the Environment for the Niagara Peninsula Source Protection Area.			

The Date the Source Protection Plan is to be Submitted to the Minister for Approval by the Niagara Peninsula Source Protection Authority:

2012-Aug-20

Council Resolution(s) to Include Drinking Water System(s)

No Drinking Water Systems have been included in the Niagara Peninsula Source Protection Area by way of Municipal Council Resolution.

Council Resolution(s) to Exempt Municipal Residential Drinking Water System(s)

No Drinking Water Systems have been exempted in the Niagara Peninsula Source Protection Area by way of Municipal Council Resolution.

Detailed Information

Detailed Information on Municipal Residential Drinking Water System(s)

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220007150	Grimsby Water Treatment Plant	Regional Municipality of Niagara	Regional Municipality of Niagara	Surface Water	0
Number of Surface Water Intakes	Comments					
1	The Grimsby WTP intake is located about 1950 m into Lake Ontario. The WTP supplies urban areas in Grimsby and parts of Town of Lincoln and a small area in Hamilton.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220002066	St. Catharines (Decew) Water Treatment Plant	Regional Municipality of Niagara	Regional Municipality of Niagara	Surface Water	0
Number of Surface Water Intakes	Comments					
1	<p>The Decew WTP is supplied by raw water from the Lower Reservoir, which is fed from the Welland Canal via a 5.4 km long supply canal.</p> <p>In addition to the primary intake at the west end of the Lower Reservoir, Niagara Region has designated two additional locations as alternate intakes; (1) the supply canal control structure at Hwy 406; and (2) the Lake Gibson emergency control structure (between Lake Gibson and the Lower Reservoir).</p> <p>The Decew WTP supplies St. Catharines, NOTL, Thorold and parts of Town of Lincoln.</p>					

Drinking Water	Drinking Water	Drinking Water System Name	Owner	Operating Authority	Source Water Type	Number of
----------------	----------------	----------------------------	-------	---------------------	-------------------	-----------

Terms of Reference

System Type (planned or existing)	System Number				(surface, ground, both)	Wells
Existing	220002084	Niagara Falls Water Treatment Plant	Regional Municipality of Niagara	Regional Municipality of Niagara	Surface Water	0
Number of Surface Water Intakes	Comments					
1	<p>Niagara Falls WTP intake is located on the Welland River. However the source water actually comes from the Niagara River, since the lower portion of Welland River flows 'backwards' from Niagara River to the OPG Hydro Power Canal. The WTP supplies the City of Niagara Falls.</p> <p>Currently Regional Municipality of Niagara is undertaking an Environmental Assessment to consider the best option to relocate the Niagara Falls WTP intake from the Welland River to the Niagara River. Timing of the decision to relocate the intake is not known at this point in time. Once the relocation has occurred it is expected the existing intake will be maintained as a back-up.</p>					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220002048	Welland Water Treatment Plant	Regional Municipality of Niagara	Regional Municipality of Niagara	Surface Water	0
Number of Surface Water Intakes	Comments					
1	<p>Welland WTP intake is located on the east bank of the Welland Recreation Canal. The WTP is situated near Welland city-centre. Source water comes from Lake Erie via the Welland Canal and Welland Recreation Canal.</p> <p>The Welland WTP supplies City of Welland and Town of Pelham.</p>					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220002075	Port Colborne Water Treatment Plant	Regional Municipality of Niagara	Regional Municipality of Niagara	Surface Water	0
Number of Surface Water Intakes	Comments					
1	The intake for the Port Colborne WTP is located on the west bank of the Welland Canal in Port Colborne.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220002020	Fort Erie (Rosehill) Water Treatment Plant	Regional Municipality of Niagara	Regional Municipality of Niagara	Surface Water	0
Number of Surface Water Intakes	Comments					
1	The Fort Erie (Rosehill) WTP intake is located approximately 500m into Lake Erie in about 3 m depth of water. The total rated capacity of the WTP is 50 MI/day. The WTP supplies areas in the Town of Fort Erie. Due to the location of the Rosehill WTP intake, the intake protection zones may extend close to the USA-Canada international boundary.					

Detailed Information on Drinking Water System(s) Included by Municipal Council Resolution
(Not Municipal Residential Drinking Water Systems)

No Drinking Water Systems have been included in the Niagara Peninsula Source Protection Area by way of Municipal Council Resolution.

Detailed Information on Drinking Water System(s) Included by Bands Serving Reserve(s)
(Not Municipal Residential Drinking Water Systems)

There are no reserves located in the Niagara Peninsula Source Protection Area.

Detailed Information on Fully or Partially Exempted Municipal Residential Drinking Water System(s)

No Drinking Water Systems have been exempted in the Niagara Peninsula Source Protection Area by way of Municipal Council Resolution.

Detailed Information on Drinking Water System(s) Included by the Minister of the Environment
(Not Municipal Residential Drinking Water Systems)

No Drinking Water Systems have been included in the Niagara Peninsula Source Protection Area by way of Municipal Council Resolution.

Detailed Work Plan to Complete the Assessment Report

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Coordinating and supporting projects for the assessment report	Niagara Peninsula Source Protection Authority	2005-Jan-01	2010-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Costs for 2008 to 2012 are estimates only and are subject to approval by the Ministry of the Environment (MOE)/Ministry of Natural Resource (MNR). Actual costs may vary.		The task encompasses the whole jurisdiction of the Niagara Peninsula Source Protection Area.		\$2,097,512

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Undertaking communications initiatives for the assessment report	Niagara Peninsula Source Protection Authority	2005-Jan-01	2010-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Staff costs to complete the communications initiatives are covered under the task "Coordinating and supporting projects for the assessment report". However outside expenses (ex newspaper advertisements) are shown in this communications task. Costs for 2008/2009 to 2012/2013 are estimates only and are subject to approval by the Ministry of the Environment (MOE). Actual costs may vary.		The task encompasses the whole jurisdiction of the Niagara Peninsula Source Protection Area.		\$505,314

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Information management for the assessment report preparation	Niagara Peninsula Source Protection Authority	2005-Jan-01	2010-Mar-31
Comments		Defined Geographic Area		Estimated Cost
NPCA provides the Information Management (IM) services for the assessment report preparation tasks. Some IM costs are incorporated under the task, "Coordinating and supporting projects for the assessment report" which covers operational costs. NPCA operates in an information technology (IT) structure provided under an agreement with the Regional Municipality of Niagara.		The task encompasses the whole jurisdiction of the Niagara Peninsula Source Protection Area.		\$79,678

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Undertaking a watershed characterization	Niagara Peninsula Source Protection Authority	2005-Jan-01	2009-Mar-31
Comments		Defined Geographic Area		Estimated Cost
<p>NPCA commenced work on the Watershed Characterization report in 2005 and submitted a draft report to Conservation Ontario (CO) for peer evaluation in December 2006. Results of the peer evaluation were only provided to NPCA in January 2008.</p> <p>Most of the Watershed Characterization report was completed in-house using NPCA source protection staff, instead of outside consultants, and thus the cost to complete this task is mostly covered under the task "Coordinating and supporting projects for the assessment report".</p> <p>NPCA plan to revise and edit the Watershed Characterization report as required to satisfy the CO/MOE peer evaluation. Some costs may require retaining an outside consultant to fill in data gaps.</p> <p>Costs for 2008/2009 to 2012/2013 are estimates only and are subject to approval by the Ministry of the Environment (MOE). Actual costs may vary.</p>		The task covers the whole Niagara Peninsula Source Protection Area.		\$21,912

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Conducting a conceptual water budget	Niagara Peninsula Source Protection Authority	2005-Jan-01	2007-Jun-15
Comments		Defined Geographic Area		Estimated Cost
<p>NPCA started the Conceptual Water Budget in 2005. A peer review team was formed to review the water budget work. A consultant was retained to complete a conceptual water budget report. The report also included some base flow analysis of Twenty Mile Creek to complement the conceptual report.</p>		The Conceptual Water Budget report was completed for the whole NPCA jurisdiction.		\$63,473

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Conducting a tier 1 water budget analysis and stress assessment	Niagara Peninsula Source Protection Authority	2007-Oct-02	2008-Dec-31
Comments		Defined Geographic Area		Estimated Cost
<p>The Tier 1 Water Budget was officially approved in the MNR memo dated Oct 2, 2007. Original MNR funding was for \$ 123,560. The NPCA agreed to complete \$ 20,400 of work in-house towards the Tier 1 Water Budget tasks using non-SWP funding.</p> <p>MNR in their memo of January 31, 2008 approved an additional \$ 47,650 in funding to complete additional scope of work tasks on the Tier 1 Water Budget. In total the approved MNR funding for the Tier 1 Water Budget was \$ 171,210.</p> <p>Completion of the Tier 1 Water Budget is currently estimated to be December 2008. Actual completion date may vary.</p>		The Tier 1 Water Budget task is completed on the whole jurisdiction of the Niagara Peninsula Source Protection Area.		\$171,210

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Delineating and applying vulnerability scores to HVAs	Niagara Peninsula Source Protection Authority	2006-Apr-01	2009-Jan-30
Comments		Defined Geographic Area		Estimated Cost
<p>NPCA has prepared a preliminary delineation of the vulnerable areas; Highly Vulnerable Aquifers (HVAs).</p> <p>NPCA expects to complete the delineation and vulnerability scoring for these HVAs by February 2009.</p> <p>Staffing costs to complete this task are covered under the task "Coordinating and supporting projects for the assessment report".</p>		This task will encompass the whole Niagara Peninsula Source Protection Area.		\$2,778

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Identifying issues, inventorying threats and assessing hazards in HVAs	Niagara Peninsula Source Protection Authority	2006-Apr-01	2009-Mar-31
Comments		Defined Geographic Area		Estimated Cost
A preliminary Threats Inventory and Issues Identification was completed as part of the Watershed Characterization report. Costs to finish this task are estimated and may change as new information and new provincial guidance becomes available. Costs for 2008/2009 and beyond are estimates only and are subject to approval by the Ministry of the Environment (MOE). Actual costs may vary.		This task will encompass the whole Niagara Peninsula Source Protection Area.		\$7,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Assessing risks in HVAs	Niagara Peninsula Source Protection Authority	2006-Apr-01	2009-Apr-30
Comments		Defined Geographic Area		Estimated Cost
Staffing costs to undertake this task are covered under the task "Coordinating and supporting projects for the assessment report". Costs for 2008/2009 & 2009/2010 are estimates only and are subject to approval by the Ministry of the Environment (MOE). Actual costs may vary.		This task will encompass the whole Niagara Peninsula Source Protection Area.		\$5,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Applying vulnerability scores to SGRAs	Niagara Peninsula Source Protection Authority	2006-Apr-01	2009-Jan-30
Comments		Defined Geographic Area		Estimated Cost
NPCA has prepared a preliminary delineation of the Significant Groundwater Recharge Areas (SGRAs) . Further refinement of the SGRAs delineation will be completed in the Tier 1 Water Budget. The task of "Applying Vulnerability Scores to SGRAs" will likely be completed in-house by NPCA source protection staff. Thus these SP staff costs are		This task will encompass the whole Niagara Peninsula Source Protection Area.		\$0

Terms of Reference

covered by the funds under task "Coordinating and supporting projects for the assessment report".		
---	--	--

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Identifying issues, inventorying threats and assessing hazards in SGRAs	Niagara Peninsula Source Protection Authority	2006-Apr-01	2009-Mar-31
Comments		Defined Geographic Area		Estimated Cost
A preliminary Threats Inventory and Issues Identification was completed as part of the Watershed Characterization report. Costs to finish this task are estimated and may change as new information becomes available. Costs for 2008/2009 and beyond are estimates only and are subject to approval by the Ministry of the Environment (MOE). Actual costs may vary.		This task covers SGRAs within the whole jurisdiction of the Niagara Peninsula Source Protection Area.		\$6,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Assessing risk in SGRAs	Niagara Peninsula Source Protection Authority	2006-Apr-01	2009-Apr-30
Comments		Defined Geographic Area		Estimated Cost
Staffing costs to undertake this task are covered under the task "Coordinating and supporting projects for the assessment report". Costs will change if a consultant needs to be retained for this task. Costs for 2008/2009 & 2009/2010 are estimates only and are subject to approval by the Ministry of the Environment (MOE). Actual costs may vary.				\$0

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Consultation on the overall proposed assessment report Consult with municipalities and public on Assessment Report	Niagara Peninsula Source Protection Authority	2009-Aug-01	2010-Jan-31
Comments		Defined Geographic Area		Estimated Cost
Task Description: Once the AR is assembled and edited -comments will be sought from the municipalities and the public on the AR.		The task encompasses the whole jurisdiction of the Niagara Peninsula Source Protection Area.		\$40,000

Terms of Reference

The completion date of this task is only estimated and will vary depending on when the MOE approve the Terms of Reference.		
--	--	--

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Assemble the Assessment Report (AR) from the various technical reports	Niagara Peninsula Source Protection Authority	2009-May-01	2009-Sep-30
Comments		Defined Geographic Area		Estimated Cost
Task Description: Assemble the Assessment Report (AR) from the various technical reports that were prepared under the direction of the MOE Technical Guidance modules. Prepare final edits/revisions of the AR. Perform QA/QC on the AR. This task also may include a peer review of the AR. Prepare materials for presenting to the public and for consulting with municipalities. The completion date of this task is estimated and may vary depending on when the MOE approve the Terms of Reference.		The task encompasses the whole jurisdiction of the Niagara Peninsula Source Protection Area.		\$50,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Port Colborne Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Regional Municipality of Niagara	2006-Jan-31	2008-Sep-27
Comments		Defined Geographic Area		Estimated Cost
Regional Municipality of Niagara (Regional Niagara) is the assigned lead responsible for completing this task. Regional Niagara retained a consultant to complete the work. The final draft report that delineates the IPZs and applies vulnerability scores to IPZs is expected to be completed June 2008. However, the task cannot be finalized until the Assessment Report Regulation, Director's rules, and guidance are released by the province. The Port Colborne intake may be impacted by the Great Lakes Agreements. Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future.		Port Colborne Water Treatment Plant Intake Protection Zones (IPZs).		\$61,000

Terms of Reference

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Fort Erie (Rosehill) Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Regional Municipality of Niagara	2006-Jan-31	2008-Sep-27
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Municipality of Niagara (Regional Niagara) is the assigned lead responsible for completing this task . The final draft report that delineates the IPZs and applies vulnerability scores to IPZs is expected to be completed June 2008. However, the task cannot be finalized until the Assessment Report Regulation, Director's rules, and guidance is released by the province.</p> <p>This intake is located on Lake Erie close to the USA-Canada border, and thus may be impacted by the Great Lakes Agreements.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		Fort Erie (Rosehill) Water Treatment Plant Intake Protection Zones (IPZs).		\$61,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Falls Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Regional Municipality of Niagara	2006-Jan-31	2008-Sep-27
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Municipality of Niagara (Regional Niagara) is the assigned lead responsible for completing this task . The final draft report that delineates the IPZs and applies vulnerability scores to IPZs is expected to be completed June 2008. However, the task cannot be finalized until the Assessment Report Regulation, Director's rules, and guidance are released by the province.</p> <p>The Niagara Falls intake may be impacted by the Great Lakes Agreements, since the IPZ-2 for this intake, is expected to extend up to the USA-Canada international border on the Niagara River.</p> <p>Additional work may be required for this task that are currently unforeseen. For example, the WTP intake is expected to be relocated to the Niagara River and this would require reassessment of the IPZ delineation. Consequently costs</p>		Niagara Falls Water Treatment Plant Intake Protection Zones (IPZs).		\$61,000

Terms of Reference

shown for this task are only estimates and subject to change.		
---	--	--

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Catharines (Decew) Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Regional Municipality of Niagara	2006-Jan-31	2008-Sep-27
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Municipality of Niagara (Regional Niagara) is the assigned lead responsible for completing this task . Regional Niagara retained a consultant to complete the work. The final draft report that delineates the IPZs and applies vulnerability scores to IPZs is expected to be completed June 2008. However, the task cannot be finalized until the Assessment Report Regulation, Director's rules, and guidance are released by the province.</p> <p>The Decew intake may be impacted by the Great Lakes Agreements.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		St. Catharines (Decew) Water Treatment Plant Intake Protection Zones (IPZs) including the emergency alternate intake, Lake Gibson.		\$95,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Welland Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Regional Municipality of Niagara	2006-Jan-31	2008-Sep-27
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Municipality of Niagara (Regional Niagara) is the assigned lead responsible for completing this work . Regional Niagara retained a consultant to complete the task. The final draft report that delineates the IPZs and applies vulnerability scores to IPZs is expected to be completed June 2008. However, the task cannot be finalized until the Assessment Report Regulation, Director's rules, and guidance are released by the province.</p> <p>The Welland WTP intake may be impacted by the Great Lakes Agreements.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to</p>		Welland Water Treatment Plant Intake Protection Zones (IPZs).		\$61,000

Terms of Reference

change, particularly if additional work needed to completed this task is identified in future .		
---	--	--

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Grimsby Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Regional Municipality of Niagara	2006-Jan-31	2008-Sep-27
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Municipality of Niagara (Regional Niagara) is the assigned lead responsible for completing this work . Regional Niagara retained a consultant to complete the work. The final draft report that delineates the IPZs and applies vulnerability scores to IPZs is expected to be completed June 2008. However, the task cannot be finalized until the Assessment Report Regulation, Director's rules, and guidance are released by the province.</p> <p>The Grimsby intake is located on Lake Ontario, and thus may be impacted by the Great Lakes Agreements.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		Grimsby Water Treatment Plant Intake Protection Zones (IPZs).		\$85,725

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Fort Erie (Rosehill) Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Regional Municipality of Niagara	2007-Apr-01	2009-Apr-30
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Niagara is the assigned lead on this task. Regional Niagara plans to retain a consultant to complete the Threats Inventory and Issues Identification within this IPZ. The Threats Inventory work cannot be completed until the MOE provides key database and software.</p> <p>The consultant or party responsible for completing the Drinking Water Issues Identification must consider information found in a number of Great Lakes agreements, such as the Great Lakes Water Quality Agreement (GLWQA). For example, water quality issues identified in the GLWQA should be considered</p>		Fort Erie (Rosehill) Water Treatment Plant Intake Protection Zones (IPZs).		\$41,800

Terms of Reference

<p>when identifying drinking water issues.</p> <p>Start and Completion dates for this task are only estimates, and may change. Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		
--	--	--

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Grimsby Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Regional Municipality of Niagara & Niagara Peninsula Source Protection Authority	2007-Apr-01	2009-Apr-30
Comments		Defined Geographic Area		Estimated Cost
<p>This task will be completed by the Regional Municipality of Niagara and Niagara Peninsula Source Protection Authority.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		Grimsby Water Treatment Plant Intake Protection Zones (IPZs).		\$55,784

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Falls Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Regional Municipality of Niagara	2007-Apr-01	2009-Apr-30
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Niagara is the assigned lead on this task. Regional Niagara plans to retain a consultant to complete the Threats Inventory and Issues Identification within this IPZ. The Threats Inventory work cannot be fully completed until the MOE provides key database and software.</p> <p>The consultant or party responsible for completing the Drinking Water Issues Identification must consider information provided in the Niagara River RAP. This should include identifying whether there are linkages between the Beneficial Use Impairments (BUIs) shown in the RAP, and drinking water source protection issues.</p>		Niagara Falls Water Treatment Plant Intake Protection Zones (IPZs).		\$41,800

Terms of Reference

<p>Start and Completion dates for this task are only estimates, and may change.</p> <p>Additional work may be required for this task that are currently unforeseen. For example, the relocation of the WTP intake to the Niagara River would require reassessment of the IPZ delineation and consequent revision of the issues and threats identification. Consequently costs shown for this task are only estimates and subject to change.</p>		
---	--	--

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Welland Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Regional Municipality of Niagara	2007-Apr-01	2009-Apr-30
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Niagara is the assigned lead on this task. Regional Niagara plans to retain a consultant to complete the Threats Inventory and Issues Identification within this IPZ. The Threats Inventory work cannot be fully completed until the MOE provides key database and software.</p> <p>The consultant or party responsible for completing the Drinking Water Issues Identification must consider information found in a number of Great Lakes agreements, such as the Great Lakes Water Quality Agreement (GLWQA). For example, water quality issues identified in the GLWQA should be considered when identifying drinking water issues.</p> <p>Start and Completion dates for this task are only estimates, and may change.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		Welland Water Treatment Plant Intake Protection Zones (IPZs).		\$41,800

Terms of Reference

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Port Colborne Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Regional Municipality of Niagara	2007-Apr-01	2009-Apr-30
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Niagara is the assigned lead on this task. Regional Niagara plans to retain a consultant to complete the Threats Inventory and Issues Identification within this IPZ. The Threats Inventory work cannot be fully completed until the MOE provides key database and software.</p> <p>The consultant or party responsible for completing the Drinking Water Issues Identification must consider information found in a number of Great Lakes agreements, such as the Great Lakes Water Quality Agreement (GLWQA). For example, water quality issues identified in the GLWQA should be considered when identifying drinking water issues.</p> <p>Start and Completion dates for this task are only estimates, and may change.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		Port Colborne Water Treatment Plant Intake Protection Zones (IPZs).		\$41,800

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Catharines (Decew) Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Regional Municipality of Niagara	2007-Apr-01	2009-Apr-30
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Niagara is the assigned lead on this task. Regional Niagara plans to retain a consultant to complete the Threats Inventory and Issues Identification within this IPZ. The Threats Inventory work cannot be fully completed until the MOE provides key database and software.</p> <p>The consultant or party responsible for completing the Drinking Water Issues Identification must consider information found in a number of Great Lakes agreements, such as the Great Lakes Water Quality Agreement (GLWQA). For</p>		St. Catharines (Decew) Water Treatment Plant Intake Protection Zones (IPZs) including the emergency alternate intake, Lake Gibson.		\$41,800

Terms of Reference

<p>example, water quality issues identified in the GLWQA should be considered when identifying drinking water issues.</p> <p>Start and Completion dates for this task are only estimates, and may change.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		
--	--	--

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Fort Erie (Rosehill) Water Treatment Plant	Assess risk in WHPAs or IPZs	Regional Municipality of Niagara	2007-Apr-01	2009-May-31
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Niagara is the assigned lead on this task. Regional Niagara plans to retain a consultant to assess the Threats and Issues that were identified within this IPZ. The Risk Assessment work cannot be completed until the MOE provides key database and software.</p> <p>The consultant or party responsible for completing the Drinking Water Issues Identification must consider information found in a number of Great Lakes agreements, such as the Great Lakes Water Quality Agreement (GLWQA). For example, water quality issues identified in the GLWQA should be considered when identifying drinking water issues.</p> <p>Start and Completion dates for this task are only estimates, and may change with time.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		Fort Erie (Rosehill) Water Treatment Plant Intake Protection Zones (IPZs).		\$10,800

Terms of Reference

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Welland Water Treatment Plant	Assess risk in WHPAs or IPZs	Regional Municipality of Niagara	2007-Apr-01	2009-May-31
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Niagara is the assigned lead on this task. Regional Niagara plans to retain a consultant to assess the Threats and Issues that were identified within this IPZ. The Risk Assessment work cannot be completed until the MOE provides key database and software.</p> <p>The consultant or party responsible for completing the Drinking Water Issues Evaluation and risk assessments must consider information provided in the Niagara River RAP. This should include identifying whether there are linkages between the Beneficial Use Impairments (BUIs) shown in the RAP, and drinking water source protection issues.</p> <p>Start and Completion dates for this task are only estimates, and may change with time.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		Welland Water Treatment Plant Intake Protection Zones (IPZs).		\$10,800

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Catharines (Decew) Water Treatment Plant	Assess risk in WHPAs or IPZs	Regional Municipality of Niagara	2007-Apr-01	2009-May-31
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Niagara is the assigned lead on this task. Regional Niagara plans to retain a consultant to assess the Threats and Issues that were identified within this IPZ. The Risk Assessment work cannot be completed until the MOE provides key database and software.</p> <p>The consultant or party responsible for completing the Drinking Water Issues Identification must consider information found in a number of Great Lakes</p>		St. Catharines (Decew) Water Treatment Plant Intake Protection Zones (IPZs) including the emergency alternate intake, Lake Gibson.		\$10,800

Terms of Reference

<p>agreements, such as the Great Lakes Water Quality Agreement (GLWQA). For example, water quality issues identified in the GLWQA should be considered when identifying drinking water issues.</p> <p>Start and Completion dates for this task are only estimates, and may change with time.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		
---	--	--

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Port Colborne Water Treatment Plant	Assess risk in WHPAs or IPZs	Regional Municipality of Niagara	2007-Apr-01	2009-May-31
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Niagara is the assigned lead on this task. Regional Niagara plans to retain a consultant to assess the Threats and Issues that were identified within this IPZ. The Risk Assessment work cannot be completed until the MOE provides key database and software.</p> <p>The consultant or party responsible for completing the Drinking Water Issues Identification must consider information found in a number of Great Lakes agreements, such as the Great Lakes Water Quality Agreement (GLWQA). For example, water quality issues identified in the GLWQA should be considered when identifying drinking water issues.</p> <p>Start and Completion dates for this task are only estimates, and may change with time.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		Port Colborne Water Treatment Plant Intake Protection Zones (IPZs).		\$10,800

Terms of Reference

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Falls Water Treatment Plant	Assess risk in WHPAs or IPZs	Regional Municipality of Niagara	2007-Apr-01	2009-May-31
Comments		Defined Geographic Area		Estimated Cost
<p>Regional Niagara is the assigned lead on this task. Regional Niagara plans to retain a consultant to assess the Threats and Issues that were identified within this IPZ. The Risk Assessment work cannot be completed until the MOE provides key database and software.</p> <p>The consultant or party responsible for completing the Drinking Water Issues Evaluation and risk assessments must consider information provided in the Niagara River RAP. This should include identifying whether there are linkages between the Beneficial Use Impairments (BUIs) shown in the RAP, and drinking water source protection issues.</p> <p>Start and Completion dates for this task are only estimates, and may change with time.</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future .</p>		Niagara Falls Water Treatment Plant Intake Protection Zones (IPZs).		\$10,800

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Grimsby Water Treatment Plant	Assess risk in WHPAs or IPZs	Regional Municipality of Niagara & Niagara Peninsula Source Protection Authority	2007-Apr-01	2009-May-31
Comments		Defined Geographic Area		Estimated Cost
<p>This task will be completed by the Regional Municipality of Niagara and Niagara Peninsula Source Protection Authority,</p> <p>Additional work may be required for this task that are currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified</p>		Grimsby Water Treatment Plant Intake Protection Zones (IPZs).		\$14,608

Terms of Reference

in future .		
-------------	--	--

Terms of Reference

Detailed Work Plan to Complete the Source Protection Plan

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Coordinating and supporting projects for the source protection plan (SPP)	Niagara Peninsula Source Protection Authority	2010-Apr-01	2012-Mar-31
Comments		Defined Geographic Area		Estimated Cost
zThis task includes operational costs such as Source Protection staff salaries & benefits, support and admin costs including office space and equipment, admin support costs etc.		This task covers the whole Niagara Peninsula Source Protection Area.		\$965,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Undertaking communications initiatives for the source protection plan	Niagara Peninsula Source Protection Authority	2010-Apr-01	2012-Mar-31
Comments		Defined Geographic Area		Estimated Cost
				\$175,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Information management for source protection plan preparation	Niagara Peninsula Source Protection Authority	2010-Apr-01	2012-Mar-31
Comments		Defined Geographic Area		Estimated Cost
NPCA provides the Information Management (IM) services for the source protection plan development tasks. Some IM costs are incorporated under the task, "Coordinating and supporting projects for the assessment report" which covers operational costs. NPCA operates in an information technology (IT) structure provided under an agreement with the Regional Municipality of Niagara.				\$40,000

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2010-Jan-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
				\$10,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Jan-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
				\$10,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Jan-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
				\$15,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Establishing timelines for policy implementation	Niagara Peninsula Source Protection Authority	2011-Jan-01	2011-Aug-31
Comments		Defined Geographic Area		Estimated Cost
				\$20,000

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area	Consultation on the overall proposed source protection plan	Niagara Peninsula Source Protection Authority	2010-Apr-01	2012-Mar-31
Comments		Defined Geographic Area		Estimated Cost
				\$60,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Peninsula Source Protection Area		Niagara Peninsula Source Protection Authority	2011-Jan-01	2012-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Assemble and edit and QA/QC the Source Protection Plan (SPP) prior to final consultations with municipalities and the public.		The task will cover the whole Niagara Peninsula Source Protection Area.		\$14,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Catharines (Decew) Water Treatment Plant	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		St. Catharines (Decew) Water Treatment Plant Intake Protection Zones (IPZs) including the emergency alternate intake, Lake Gibson.		\$40,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Port Colborne Water Treatment Plant	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen.		Port Colborne Water Treatment Plant Intake Protection Zones		\$40,000

Terms of Reference

Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.	(IPZs).	
--	---------	--

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Falls Water Treatment Plant	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		Niagara Falls Water Treatment Plant Intake Protection Zones (IPZs).		\$40,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Grimsby Water Treatment Plant	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		Grimsby Water Treatment Plant Intake Protection Zones (IPZs).		\$40,000

Terms of Reference

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Fort Erie (Rosehill) Water Treatment Plant	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		Fort Erie (Rosehill) Water Treatment Plant Intake Protection Zones (IPZs).		\$40,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Welland Water Treatment Plant	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		Welland Water Treatment Plant Intake Protection Zones (IPZs).		\$40,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Fort Erie (Rosehill) Water Treatment Plant	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future.		Fort Erie (Rosehill) Water Treatment Plant Intake Protection Zones (IPZs).		\$30,000

Terms of Reference

Start and Completion dates for this task are only estimates, and subject to change.		
---	--	--

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Welland Water Treatment Plant	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		Welland Water Treatment Plant Intake Protection Zones (IPZs).		\$30,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Catharines (Decew) Water Treatment Plant	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		St. Catharines (Decew) Water Treatment Plant Intake Protection Zones (IPZs) including the emergency alternate intake, Lake Gibson.		\$30,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Port Colborne Water Treatment Plant	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to		Port Colborne Water Treatment Plant Intake Protection Zones (IPZs).		\$30,000

Terms of Reference

change.		
---------	--	--

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Falls Water Treatment Plant	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		Niagara Falls Water Treatment Plant Intake Protection Zones (IPZs).		\$30,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Grimsby Water Treatment Plant	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
		Grimsby Water Treatment Plant Intake Protection Zones (IPZs).		\$30,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Fort Erie (Rosehill) Water Treatment Plant	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		Fort Erie (Rosehill) Water Treatment Plant Intake Protection Zones (IPZs).		\$40,000

Terms of Reference

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Grimsby Water Treatment Plant	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
		Grimsby Water Treatment Plant Intake Protection Zones (IPZs).		\$40,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Falls Water Treatment Plant	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		Niagara Falls Water Treatment Plant Intake Protection Zones (IPZs).		\$40,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Port Colborne Water Treatment Plant	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		Port Colborne Water Treatment Plant Intake Protection Zones (IPZs).		\$40,000

Terms of Reference

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Welland Water Treatment Plant	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		Welland Water Treatment Plant Intake Protection Zones (IPZs).		\$40,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Catharines (Decew) Water Treatment Plant	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Additional work may be required for this task that is currently unforeseen. Consequently costs shown for this task are only estimates and subject to change, particularly if additional work needed to completed this task is identified in future. Start and Completion dates for this task are only estimates, and subject to change.		St. Catharines (Decew) Water Treatment Plant Intake Protection Zones (IPZs) including the emergency alternate intake, Lake Gibson.		\$40,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Fort Erie (Rosehill) Water Treatment Plant	Establishing timelines for policy implementation	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Aug-31
Comments		Defined Geographic Area		Estimated Cost
		Fort Erie (Rosehill) Water Treatment Plant Intake Protection Zones (IPZs).		\$10,000

Terms of Reference

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Welland Water Treatment Plant	Establishing timelines for policy implementation	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Aug-31
Comments		Defined Geographic Area		Estimated Cost
		Welland Water Treatment Plant Intake Protection Zones (IPZs).		\$10,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Catharines (Decew) Water Treatment Plant	Establishing timelines for policy implementation	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Aug-31
Comments		Defined Geographic Area		Estimated Cost
		St. Catharines (Decew) Water Treatment Plant Intake Protection Zones (IPZs) including the emergency alternate intake, Lake Gibson.		\$10,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Port Colborne Water Treatment Plant	Establishing timelines for policy implementation	Niagara Peninsula Conservation Authority	2010-Mar-01	2011-Aug-31
Comments		Defined Geographic Area		Estimated Cost
		Port Colborne Water Treatment Plant Intake Protection Zones (IPZs).		\$10,000

Terms of Reference

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Grimsby Water Treatment Plant	Establishing timelines for policy implementation	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Aug-31
Comments		Defined Geographic Area		Estimated Cost
		Grimsby Water Treatment Plant Intake Protection Zones (IPZs)		\$10,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Niagara Falls Water Treatment Plant	Establishing timelines for policy implementation	Niagara Peninsula Source Protection Authority	2010-Mar-01	2011-Aug-31
Comments		Defined Geographic Area		Estimated Cost
		Niagara Falls Water Treatment Plant Intake Protection Zones (IPZs).		\$10,000

Summary of Financial Statistics

	Tasks Done by Source Protection Area or Drinking Water System	Estimated Costs for Tasks Under the Assessment Report	Estimated Costs for Tasks Under the Source Protection Plan	Subtotal
	Niagara Peninsula Source Protection Area	\$3,049,876	\$1,309,000	\$4,358,876
Municipal Residential Drinking Water Systems				
	Fort Erie (Rosehill) Water Treatment Plant	\$113,600	\$120,000	\$233,600
	Grimsby Water Treatment Plant	\$156,118	\$120,000	\$276,118
	Niagara Falls Water Treatment Plant	\$113,600	\$120,000	\$233,600
	Port Colborne Water Treatment Plant	\$113,600	\$120,000	\$233,600
	St. Catharines (Decew) Water Treatment Plant	\$147,600	\$120,000	\$267,600
	Welland Water Treatment Plant	\$113,600	\$120,000	\$233,600
Drinking Water Systems By Municipal Resolution				
Drinking Water Systems By Band Resolutions				
Drinking Water Systems Included By Minister				
Total Estimated Costs		\$3,807,994	\$2,029,000	\$5,836,994

Terms of Reference

Estimated Costs for Tasks by Fiscal Year

Fiscal Year defined as April 1 to March 31

Drinking Water System Category / Source Protection Area	Tasks	Fiscal Year 04/05	Fiscal Year 05/06	Fiscal Year 06/07	Fiscal Year 07/08	Fiscal Year 08/09	Fiscal Year 09/10	Fiscal Year 10/11	Fiscal Year 11/12
Niagara Peninsula Source Protection Area									
	Coordinating and supporting projects for the assessment report	\$0	\$394,970	\$378,824	\$423,718	\$440,000	\$460,000	\$0	\$0
	Undertaking communications initiatives for the assessment report	\$40,000	\$40,000	\$40,700	\$50,614	\$184,000	\$150,000	\$0	\$0
	Information management for the assessment report preparation	\$7,500	\$15,178	\$7,500	\$7,500	\$19,500	\$22,500	\$0	\$0
	Undertaking a watershed characterization	\$0	\$0	\$771	\$1,140	\$20,000	\$0	\$0	\$0
	Conducting a conceptual water budget	\$0	\$13,451	\$49,971	\$50	\$0	\$0	\$0	\$0
	Conducting a tier 1 water budget analysis and stress assessment	\$0	\$0	\$0	\$123,560	\$47,650	\$0	\$0	\$0
	Delineating and applying vulnerability scores to HVAs	\$0	\$0	\$2,500	\$278	\$0	\$0	\$0	\$0
	Identifying issues, inventorying threats and assessing hazards in HVAs	\$0	\$0	\$0	\$0	\$7,000	\$0	\$0	\$0
	Assessing risks in HVAs	\$0	\$0	\$0	\$0	\$5,000	\$0	\$0	\$0
	Applying vulnerability scores to SGRAs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Terms of Reference

Drinking Water System Category / Source Protection Area	Tasks	Fiscal Year 04/05	Fiscal Year 05/06	Fiscal Year 06/07	Fiscal Year 07/08	Fiscal Year 08/09	Fiscal Year 09/10	Fiscal Year 10/11	Fiscal Year 11/12
	Identifying issues, inventorying threats and assessing hazards in SGRAs	\$0	\$0	\$0	\$0	\$6,000	\$0	\$0	\$0
	Assessing risk in SGRAs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Consultation on the overall proposed assessment report Consult with municipalities and public on Assessment Report	\$0	\$0	\$0	\$0	\$0	\$40,000	\$0	\$0
	Assemble the Assessment Report (AR) from the various technical reports	\$0	\$0	\$0	\$0	\$0	\$50,000	\$0	\$0
	Coordinating and supporting projects for the source protection plan (SPP)	\$0	\$0	\$0	\$0	\$0	\$0	\$475,000	\$490,000
	Undertaking communications initiatives for the source protection plan	\$0	\$0	\$0	\$0	\$0	\$0	\$87,500	\$87,500
	Information management for source protection plan preparation	\$0	\$0	\$0	\$0	\$0	\$0	\$22,500	\$17,500
	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$0
	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$0
	Policy development for Great Lakes elements (where	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000	\$0

Terms of Reference

Drinking Water System Category / Source Protection Area	Tasks	Fiscal Year 04/05	Fiscal Year 05/06	Fiscal Year 06/07	Fiscal Year 07/08	Fiscal Year 08/09	Fiscal Year 09/10	Fiscal Year 10/11	Fiscal Year 11/12
	required/permissible in Act & Regs)								
	Establishing timelines for policy implementation	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$10,000
	Consultation on the overall proposed source protection plan	\$0	\$0	\$0	\$0	\$0	\$0	\$30,000	\$30,000
		\$0	\$0	\$0	\$0	\$0	\$0	\$5,000	\$9,000
Municipal Residential Drinking Water Systems									
	Delineating and applying vulnerability scores to WHPAs or IPZs	\$0	\$27,000	\$193,725	\$204,000	\$0	\$0	\$0	\$0
	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	\$0	\$0	\$0	\$0	\$264,784	\$0	\$0	\$0
	Assess risk in WHPAs or IPZs	\$0	\$0	\$0	\$0	\$68,608	\$0	\$0	\$0
	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	\$0	\$0	\$0	\$0	\$0	\$0	\$240,000	\$0
	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	\$0	\$0	\$0	\$0	\$0	\$0	\$180,000	\$0
	Policy development for Great Lakes elements (where required/permissible in Act &	\$0	\$0	\$0	\$0	\$0	\$0	\$240,000	\$0

Terms of Reference

Drinking Water System Category / Source Protection Area	Tasks	Fiscal Year 04/05	Fiscal Year 05/06	Fiscal Year 06/07	Fiscal Year 07/08	Fiscal Year 08/09	Fiscal Year 09/10	Fiscal Year 10/11	Fiscal Year 11/12
	Regs)								
	Establishing timelines for policy implementation	\$0	\$0	\$0	\$0	\$0	\$0	\$60,000	\$0
Drinking Water Systems By Municipal Resolution									
Drinking Water Systems by Band Resolution									
Drinking Water Systems Included by Minister									
Fiscal Year Total		\$47,500	\$490,599	\$673,992	\$810,861	\$1,062,542	\$722,500	\$1,385,000	\$644,000

Process Checklist

Regulatory Process	Completion Date	Done By
Give copy of draft proposed ToR to groups created pursuant to Great Lakes Water Quality Agreement & involved in developing/implementing RAPs & LaMPs.	2008-Jun-9	SPCommittee
Provide copy of draft proposed ToR to chairs of SPCs who have been listed in table that describes matters that affect other source protection areas.	2008-Jun-9	SPCommittee
Provide any unresolved comments from municipalities and bands to the Minister as part of the approval package for the proposed terms of reference.	2008-Oct-20	SPAuthority
Provide any unresolved comments from municipalities and bands to the source protection authority on the draft proposed terms of reference.	2008-Aug-7	SPCommittee
Make provisions to consider Great Lakes Agreements.	2008-May-31	SPCommittee
Publish newspaper notice to publicly view draft proposed ToR on Internet and at other locations (as determined by the source protection committee).	2008-May-31	SPCommittee
Receive comments from the 30 day Internet posting from the public, municipalities, bands, and other stakeholders.	2008-Sept-8	SPAuthority
Notice for consultation on draft proposed ToR includes requests for comments submitted within 35 days of notice published in the newspaper.	2008-May-31	SPCommittee
Give a copy of the comments on proposed terms of reference to the source protection committee.	2008-Sep-30	SPAuthority
Make the draft proposed terms of reference available at other locations.	2008-Jun-9	SPCommittee
Make the proposed terms of reference available at other locations.	2008-Aug-8	SPCommittee
Municipal council resolutions have been passed agreeing upon work.	2008-Jul-31	Municipality
Notice for consultation on draft proposed ToR includes information on public meeting scheduled at least 21 days after newspaper notice is published.	2008-May-31	SPCommittee
Notify municipal clerks on the commencement of the terms of reference.	2008-Feb-14	SPCommittee
Post proposed terms of reference on the Internet for 30 days.	2008-Aug-8	SPCommittee
Post draft proposed terms of reference on Internet.	2008-May-31	SPCommittee
Provide a copy of draft proposed terms of reference to the clerks of municipalities located in the source protection area.	2008-Jun-9	SPCommittee
Provide a copy of proposed terms of reference to the source protection authority.	2008-Aug-7	SPCommittee
Provide a copy of proposed terms of reference to the clerks of municipalities located in the source protection area.	2008-Aug-8	SPCommittee
Notify band Chiefs on the commencement of the terms of reference.	Not Applicable	SPCommittee

Terms of Reference

Provide a copy of draft to the chiefs of bands whose reserves are located in the source protection area.	Not Applicable	SPCommittee
Provide a copy of proposed terms of reference to the chiefs of bands whose reserves are located in the source protection area.	Not Applicable	SPCommittee

Terms of Reference

Appendix: Full Task Descriptions

Subject Area	Task Name	Full Task Description
Assessment Report Preparation	Coordinating and supporting projects for the assessment report	Undertaking administrative support, staffing, management support, and training necessary to provide project coordination for the assessment report components and direct support to the source protection committee.
Assessment Report Preparation	Undertaking communications initiatives for the assessment report	Local area engagement, outreach and creation of communications products that support the assessment report process.
Assessment Report Preparation	Information management for the assessment report preparation	Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.
Assessment Report Preparation	Undertaking a watershed characterization	Identifying and describing watersheds in the source protection area. May include water quality analysis and peer review for water quality analysis. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a conceptual water budget	Describing the overall flow system dynamics for each watershed in the source protection area taking into consideration surface water and groundwater features, land cover (e.g. proportion of urban vs. rural uses), human-made structures (e.g. dams, channel diversions, water crossings), and water takings. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a tier 1 water budget analysis and stress assessment	Conducting a tier 1 water budget analysis, stress assessment, and delineation of significant groundwater recharge areas. May also include the identification of water quantity concerns and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a tier 2 water budget analysis and stress assessment	If determined necessary from a tier 1 water budget analysis and stress assessment, conducting a tier 2 water budget analysis and stress assessment, and refining the delineation of significant groundwater recharge areas. May also include the identification of water quantity concerns and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a tier 3 water budget analysis and water quantity risk assessment	If determined necessary from a tier 2 water budget analysis and stress assessment, conducting a tier 3 water budget analysis and water quantity risk assessment. May include identifying significant, moderate and low water quantity threats. May also include consultation with property owners/residents/stakeholders impacted by a significant drinking water threat scoring and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Delineating and applying vulnerability scores to HVAs	Delineating the location and extent of highly vulnerable aquifers in the source protection area and applying vulnerability scores. An uncertainty analysis may be included in this task. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.

Terms of Reference

Assessment Report Preparation	Identifying issues, inventorying threats and assessing hazards in HVAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in the highly vulnerable aquifers. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Assessing risks in HVAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in highly vulnerable aquifers. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Applying vulnerability scores to SGRAs	Applying vulnerability scores to significant groundwater recharge areas in the source protection area (delineated in the water budget process). Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Identifying issues, inventorying threats and assessing hazards in SGRAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in the significant groundwater recharge areas. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Assessing risk in SGRAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in significant groundwater recharge areas. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Delineating and applying vulnerability scores to WHPAs or IPZs	Delineating the location and extent of the vulnerable area around a drinking water system (wellhead protection areas for drinking water systems using groundwater or intake protection zones for drinking water systems withdrawing from surface water) in the source protection area and applying a vulnerability score. Uncertainty analysis and peer review may be required. In addition, consultation with property owners/residents/stakeholders affected by the delineation and scoring for these two vulnerable areas may be required. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in wellhead protection areas and/or intake protection zones. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Assess risk in WHPAs or IPZs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in wellhead protection areas or intake protection zones. Consultation may be required with stakeholders impacted by significant drinking water threats scoring. Consultation with adjacent source protection areas or regions may also be required for shared Great Lakes drinking water issues. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Consultation on the overall proposed assessment report	Meeting the legislative and regulatory requirements on the consultation and submission process of the proposed assessment report. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report		If required, add other tasks to complete the assessment report. Describe in detail.

Terms of Reference

Preparation		
Source Protection Plan Preparation	Coordinating and supporting projects for the source protection plan (SPP)	Undertaking administrative support, staffing, management support, and training necessary to provide project coordination for the source protection plan components and direct support to the source protection committee.
Source Protection Plan Preparation	Undertaking communications initiatives for the source protection plan	Local area engagement, outreach and creation of communications products that support the source protection plan process.
Source Protection Plan Preparation	Information management for source protection plan preparation	Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.
Source Protection Plan Preparation	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Policy development to address drinking water threats (where required and/or permissible in the Act and source protection plan regulation). Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Policy development for monitoring activities (where required, advisable and/or permissible in the Act and source protection plan regulation), including determining who is responsible for implementing these policies. Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Policy development for Great Lakes associated elements (where directed by the Minister and required or permissible in the Act and source protection plan regulation), including monitoring policies to assist in implementing and determining the effectiveness of achieving Great Lake target(s) policies, determining who is responsible for implementing those policies, and determining the need to identify any of these policies as "designated Great Lakes policies". Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Establishing timelines for policy implementation	Establishing timelines for policy implementation after all policies for the SPP are developed, giving consideration to the policies developed, key players affected, capacity for implementation, the assessed risks, and natural, social, and economic considerations, including local community interests/needs. Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Consultation on the overall proposed source protection plan	Consultation and submission process of the overall proposed source protection plan. Details on how to conduct the consultations on the overall proposed source protection plan will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation		If required, add other tasks to complete the source protection plan. Describe in detail.